activity are vital in order to maintain good physical and emotional well-being in adults.

doi: 10.1016/S1047-2797(03)00167-4

ENVIRONMENTAL/OCCUPATIONAL

P034
OCCUPATION, PESTICIDE EXPOSURE AND RISK OF MULTIPLE MYELOMA

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PURPOSE: To examine the relationship between occupation, farm history, pesticide exposure and myeloma risk among blacks and whites in the U.S.
METHODS: The study included 206 black and 367 white cases, newly diagnosed with myeloma between 1986 and 1989, and 967 black and 1,164 white controls from three U.S. areas. Information was obtained on socio-demographic factors, occupational and farm history, dietary factors, smoking, and medical history. Usual occupation and industry were coded according to standardized classification systems. A job/industry exposure matrix (JEM) was developed to estimate the level of occupational exposure to pesticides. Odds ratios (ORs) and 95% confidence intervals (CIs) were estimated by unconditional logistic regression.
RESULTS: Farmers and farm workers had ORs of 1.9 (95% CI = 0.8-4.6) and 1.4 (95% CI = 0.8-2.3), respectively. An OR of 1.7 (95% CI = 1.0-2.7) was observed among those who lived or worked on a farm where sheep were raised, whereas no increased risks were found for those who lived or worked on a farm where cattle, beef, pigs, or chickens were raised. We observed a modestly increased risk for pesticides overall (OR = 1.3, 95% CI = 0.9-1.8). Significantly increased risks were also observed among pharmacists, dietitians and therapists (OR = 6.1, 95% CI = 1.7-22.5), roofers (OR = 3.3, 95% CI = 1.1-9.8), heating equipment operators (OR = 4.7, 95% CI = 1.4-15.8) and hand molders and casters (OR = 3.0, 95% CI = 1.0-8.4).
CONCLUSION: Our study suggests a modest increased risk myeloma for exposure to pesticides. The observed increased risk among subjects who lived or worked on a farm where sheep were raised suggests that certain animal viruses may be involved in myeloma risk.

doi: 10.1016/S1047-2797(03)00168-6

P035
SALIVARY GLAND CANCER MORTALITY IN RELATION TO OCCUPATIONAL EXPOSURE AMONG AFRICAN AMERICAN AND WHITE WORKERS IN THE UNITED STATES

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In contrast with other cancers of the head and neck, salivary gland cancer is not consistently associated with alcohol and/or tobacco use. Occupational and viral exposures are suggestive in the few studies conducted to date.

PURPOSE: Determine occupational exposures associated with salivary gland cancer mortality.
METHODS: We conducted a death certificate-based case-control study, including African American (168 cases, 672 controls) and white (2237 cases, 8748 controls) men and women in 24 states during 1984-89. Controls were frequency matched by 5-year age group, sex, race, and geographic region, excluding infectious causes of death. A job exposure matrix based on occupation/industry code (1980 US Census) at time of death was used to estimate exposure probability and intensity. Race and sex-stratified multiple logistic regression models estimated adjusted Odds Ratios (aOR: age, socio-economic (SES) and marital status adjustment).
RESULTS: A higher proportion of African American cases were under age 50, compared with white cases (20.8% versus 8.8%, respectively; $p < 0.001$). Among white men, higher SES was associated with higher mortality risk in a dose-dependent fashion (p trend <0.05). Ionizing radiation exposure was associated with increased mortality (aOR = 1.7; 95% CI: 1.05-2.80), but only among white men. Occupations with moderate physical activity were associated with a 20% reduced mortality risk among men in both groups, compared with sedentary occupations (aOR = 0.8; 95% CI: 0.61-0.99, white; aOR = 0.8; 95% CI; 0.19-3.69, African American). Formaldehyde, solvents, ultraviolet radiation, and animal contact were associated with elevated risk among white men ($p < 0.05$). Among African American women, formaldehyde, solvents, benzene, and animal contact exposures were suggestive, but not statistically significant.
CONCLUSION: These findings provide supporting evidence for an association with occupational radiation exposure and suggest new avenues for investigation including SES and racial/ethnic differences.

doi: 10.1016/S1047-2797(03)00169-8

P036
BIOMARKERS OF PESTICIDE EXPOSURE EVALUATED IN A CASE-CONTROL STUDY OF PROSTATE CANCER

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PURPOSE: Organochlorine (OC) pesticides such as DDT and chlordane are known to persist for decades in blood lipids. Exposure to pesticides via self-reported data or through occupational exposures have been shown to be associated with an increased risk of prostate cancer. The aims of this study were to compare serum levels of OCs to self-reported pesticide exposure and to examine these measures in association with risk of prostate cancer.
METHODS: A hospital based case-control study of 58 newly diagnosed prostate cancer cases and 99 age frequency matched controls was conducted. All participants completed a questionnaire concerning demographic and health related data and an occupational exposure chemical checklist including dates of exposure, and had blood drawn for assessment of OCs. Forty-eight OCs, including 30 polychlorinated biphenyls (PCBs), were measured in serum by gas chromatography.
RESULTS: Twenty-percent of cases and 35% of controls reported occupational exposures to pesticides with only 9% of each group specifying OC exposure. However, all but one control had detectable serum levels of OC pesticides. There was no correlation between the serum levels of OC pesticides and the self-reported